Protective Concentration Levels proposed in the draft Feasibility Study for the San Jacinto Waste Pits site. November 8, 2013

Proposed PCLs:

- Hypothetical recreational visitor: HQ of 1 TEQDF,M = 220 ng/kg; developed for sediments in the area north of I-10 outside the footprint of TCRA cap and within USEPA's Preliminary Site Perimeter.

• Hypothetical future recreational visitor: HQ of 1 TEQDF,M = 1,300 ng/kg; developed for soils in the area north of I-10 inside USEPA's Preliminary Site Perimeter.

• Hypothetical future outdoor commercial worker: HQ of 1 TEQDF,M = 1,300 ng/kg; developed for soils and sediments in the area north of I-10 inside the footprint of the TCRA cap and for soils in the area south of I-10.

• Hypothetical future construction worker: HQ of 1 TEQDF,M = 450 ng/kg; developed for soils in the area south of I-10 (0-10 feet bgs).

Current recreational visitor……220 ng/kg TEQ in sediment

Future recreational visitor…….1,300 ng/kg TEQ in soil

Future outdoor commercial worker……1,300 ng/kg TEQ in soil, sediment

Future construction worker……..450 ng/kg TEQ in soil

Concerns

- Carcinogenic PCLs are based on a TDI for an estimate of toxicity. EPA does not endorse a non-linear approach for estimating the carcinogenicity of dioxin. However, the proposed concentrations are based on non-carcinogenic effects.

- The TRW Bioavailability Committee reviewed the proposed RBA of 0.5 for this site and recommended that the basis for this assumption be provided.

- PCLs are based on an RBA of 0.5 for dioxins/furans in soil and sediment. As stated in previous material, this RBA is based on EPA's 2010 *Final Report on Bioavailability of Dioxins and Dioxin-Like Compounds in Soil.* However, EPA's report concluded the following:

    1. Currently available information suggests that RBA of dioxin in soils can be expected to be less than 100%.

2. Available estimates of soil dioxin RBA are not adequate and sufficient to estimate a value for RBA for use in risk assessment as an alternative to 100% or site-specific values.

3. A preferred animal model or bioassay protocol has not been established for predicting soil RBA in humans.